

# PNP-NPN Converter

M12 × 1; 4-pin

## BG2V1P-N-6M

Part Number



### Technical Data

#### Electrical Data

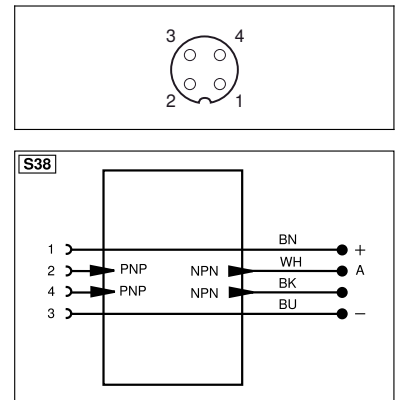
|                                             |              |
|---------------------------------------------|--------------|
| Supply Voltage                              | 10...30 V DC |
| Current Consumption (U <sub>b</sub> = 24 V) | < 2 mA       |
| Switching Output/Switching Current          | 200 mA       |
| Switching Frequency                         | 5 kHz        |
| Response Time                               | 100 µs       |
| Residual Current Switching Output           | < 50 µA      |
| Short Circuit Protection                    | yes          |
| Reverse Polarity Protection                 | yes          |
| Overload Protection                         | yes          |

#### Mechanical Data

|                          |                      |
|--------------------------|----------------------|
| Connection 1             | Socket, straight     |
| Connection mode 1        | M12 × 1, 4-pin       |
| Connection 2             | stripped             |
| Torque                   | M12: 0,6 Nm          |
| Cable Length             | 6 m                  |
| Outer diameter (d)       | 5 mm                 |
| Wire cross-section       | 0,34 mm <sup>2</sup> |
| Degree of Protection     | IP67                 |
| Temperature Range        | -10...60 °C          |
| Cable Jacket Material    | PVC                  |
| Material Wire Insulation | PVC                  |
| Material Sleeve Nut      | CuZn, nickel-plated  |
| Packaging unit           | 1 Piece              |

|                          |            |
|--------------------------|------------|
| Connection Diagram No.   | <b>S38</b> |
| Connection Equipment No. | <b>2</b>   |

### ● High protection class IP67



| Legend    |                                            |         |                                |                                        |                     |
|-----------|--------------------------------------------|---------|--------------------------------|----------------------------------------|---------------------|
| +         | Supply Voltage +                           | nc      | Not connected                  | ENB <sub>RS422</sub>                   | Encoder B/Ĕ (TTL)   |
| -         | Supply Voltage 0 V                         | U       | Test Input                     | ENA                                    | Encoder A           |
| ~         | Supply Voltage (AC Voltage)                | Ů       | Test Input inverted            | ENb                                    | Encoder B           |
| A         | Switching Output (NO)                      | W       | Trigger Input                  | AMIN                                   | Digital output MIN  |
| Ā         | Switching Output (NC)                      | W-      | Ground for the Trigger Input   | AMAX                                   | Digital output MAX  |
| V         | Contamination/Error Output (NO)            | O       | Analog Output                  | AOK                                    | Digital output OK   |
| Ų         | Contamination/Error Output (NC)            | O-      | Ground for the Analog Output   | SY In                                  | Synchronization In  |
| E         | Input (analog or digital)                  | BZ      | Block Discharge                | SY OUT                                 | Synchronization OUT |
| T         | Teach Input                                | AMV     | Valve Output                   | QLT                                    | Brightness output   |
| Z         | Time Delay (activation)                    | a       | Valve Control Output +         | M                                      | Maintenance         |
| S         | Shielding                                  | b       | Valve Control Output 0 V       | rsv                                    | Reserved            |
| RxD       | Interface Receive Path                     | SY      | Synchronization                | Wire Colors according to DIN IEC 60757 |                     |
| TxD       | Interface Send Path                        | SY-     | Ground for the Synchronization | BK                                     | Black               |
| RDY       | Ready                                      | E+      | Receiver-Line                  | BN                                     | Brown               |
| GND       | Ground                                     | S+      | Emitter-Line                   | RD                                     | Red                 |
| CL        | Clock                                      | ±       | Grounding                      | OG                                     | Orange              |
| E/A       | Output/Input programmable                  | SnR     | Switching Distance Reduction   | YE                                     | Yellow              |
| IO-Link   | IO-Link                                    | Rx+/-   | Ethernet Receive Path          | GN                                     | Green               |
| PoE       | Power over Ethernet                        | Tx+/-   | Ethernet Send Path             | BU                                     | Blue                |
| IN        | Safety Input                               | Bus     | Interfaces-Bus A(+)/B(-)       | VT                                     | Violet              |
| QSSD      | Safety Output                              | La      | Emitted Light disengageable    | GY                                     | Grey                |
| Signal    | Signal Output                              | Mag     | Magnet activation              | WH                                     | White               |
| BI_D+/-   | Ethernet Gigabit bidirect. data line (A-D) | RES     | Input confirmation             | PK                                     | Pink                |
| ENo RS422 | Encoder 0-pulse 0/Ĕ (TTL)                  | EDM     | Contact Monitoring             | GNYE                                   | Green/Yellow        |
| PT        | Platinum measuring resistor                | ENAS422 | Encoder A/Ĕ (TTL)              |                                        |                     |

